REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Examiner is also thanked for indicating that claim 5 contains allowable subject matter. The Office Action dated December 14, 2007 has been received and its contents carefully reviewed.

Claims 1-12 and 27-31 are hereby amended. Claims 32 and 33 are canceled without prejudice or disclaimer. No new matter has been added. Support for the amendment can be found, for example, at Specification, page 2, lines 3-6. Accordingly, claims 1-31 are currently pending, of which claims 13-26 are withdrawn from examination. Reexamination and reconsideration of the pending claims are respectfully requested.

The Office Action rejects claims 1-4, 8, 11, and 12 under 35 U.S.C. §102(b) as being anticipated by Lee et al., Adv. Mater. 2001, 13, No. 7, April 4, 517-20 (*Lee*). Applicants respectfully traverse this rejection.

As required in M.P.E.P. §2131, in order to anticipate a claim under 35 U.S.C. §102, "the reference must teach every element of the claim." *Lee* fails to teach each and every element of claims 1-4, 8, 11, and 12, and thus cannot anticipate these claims.

Amended claim 1 recites, "the incorporation of a probe molecule, capable of interacting specifically with a molecular entity and of revealing the presence thereof, in the pores of a porous material." (Emphasis added). *Lee* fails to teach at least this element of claim 1. Specifically, *Lee* fails to disclose "the incorporation of a probe molecule," as recited in claim 1. Instead, *Lee* discloses that "an organometallic precursor $Pd(hfac)_2$ ... was sublimed into the empty pores of the three different mesoporous materials under vacuum." *Lee*, at page 517, column 2, lines 15-18. (Emphasis added). The organometallic precursor $Pd(hfac)_2$ disclosed in *Lee* is not "a probe molecule." As such, the organometallic precursor $Pd(hfac)_2$ cannot be "a probe molecule, capable of interacting specifically with a molecular entity and of revealing the presence thereof" as recited in claim 1. Accordingly, *Lee* fails to disclose every element of claim 1 and thus cannot anticipate claim 1. Claims 2-4, 8, 11, and 12 variously depend from claim 1, thus they are also patentable over *Lee* for at least the same reasons as claim 1. Applicants, therefore, respectfully request withdrawal of the rejection.

The Office Action rejects claim 6 under 35 U.S.C. §103(a) as being obvious over *Lee* in view of U.S. Patent No. 5,262,199 to Desu et al. (*Desu*). Applicants respectfully traverse this rejection.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. The combination of *Lee* and *Desu* fails to teach or suggest each and every element of claim 1, and thus, cannot render claim 1 obvious.

As stated above, claim 1 recites, "the incorporation of a probe molecule, capable of interacting specifically with a molecular entity and of revealing the presence thereof, in the pores of a porous material." Also as discussed previously, *Lee* fails to teach or suggest at least this element of claim 1. *Desu* is simply cited for disclosing "a method of forming metal oxides within the pores of a porous substrate, wherein the precursor compound is heated using an oil bath to form a vapor of the precursor compound." *Office Action*, ¶3, page 3. *Desu* is silent regarding "the incorporation of a probe molecule." Therefore, *Desu* cannot cure the deficiency of *Lee*. Accordingly, claim 1 is patentable over the combined teaching of *Lee* and *Desu*. Claim 6 depends from claim 1 and, thus, is patentable over the combined teaching of *Lee* and *Desu* for at least the same reasons as claim 1. Applicants, therefore, respectfully request withdrawal of the rejection.

The Office Action rejects claim 7 under 35 U.S.C. §103(a) as being obvious over *Lee* in view of U.S. Patent No. 6,432,477 to Binner et al. (*Binner*). Applicants respectfully traverse this rejection.

Claim 1 recites, "the incorporation of a probe molecule, capable of interacting specifically with a molecular entity and of revealing the presence thereof, in the pores of a porous material." Applicants already addressed that *Lee* fails to teach or suggest at least this element of claim 1. *Binner* is cited for disclosing "a CVI process of depositing a material within the pores of a porous substrate, wherein a substrate support is used to hold the substrate in the chamber and heat the substrate." *Office Action*, ¶4, page 4. *Binner* also fails to teach or suggest "the incorporation of a probe molecule." Therefore, *Binner* also cannot cure the deficiency of *Lee*. Claim 1, therefore, is also patentable over the combined teaching of *Lee* and *Binner*. Claim 7 depends from claim 1 and is patentable over the combined teaching of *Lee* and *Binner* for at

least the same reasons as claim 1. Accordingly, Applicants respectfully request withdrawal of the rejection.

The Office Action rejects claims 10 and 27-33 under 35 U.S.C. §103(a) as being obvious over *Lee* in view of U.S. Patent No. 6,733,828 to Chao et al. (*Chao*) and Schulz-Ekloff et al., Microporous and Mesoporous Materials 51 (2002) 91-138 (*Schulz-Ekloff*). Claims 32 and 33 are canceled. Applicants respectfully traverse the rejection of claims 10 and 27-31.

As already discussed, claim 1 recites, "the incorporation of a probe molecule, capable of interacting specifically with a molecular entity and of revealing the presence thereof, in the pores of a porous material." As pointed out previously, *Lee* fails to teach or suggest at least this element of claim 1. *Chao* is only cited for disclosing "functional materials may be deposited by CVI within the pores of molecular sieves, such as MCM-41 and SBA-15 in order to form sensors." *Office Action*, ¶5, page 5. *Schulz-Ekloff* is cited for disclosing "a method of making optical sensors by depositing chromophores within the pores of molecular sieves." *Office Action*, ¶5, page 5. Importantly, *Chao* and *Schulz-Ekloff* are both silent regarding "the incorporation of a probe molecule." Therefore, *Chao* and *Schulz-Ekloff* also cannot cure the deficiency of *Lee*. Accordingly, claim 1 is also patentable over the combined teaching of *Lee*, *Chao*, and *Schulz-Ekloff*. Claims 10 and 27-31 variously depend from claim 1 and also patentable over the combined teaching of *Lee*, *Chao*, and *Schulz-Ekloff* for at least the same reasons as claim 1. Applicants, therefore, respectfully request withdrawal of this rejection.

The Office Action rejects claim 9 under 35 U.S.C. §103(a) as being obvious over *Lee* in view of *Chao* and *Schulz-Ekloff*, and further in view of Hoffman et al., Zeolites 16:281-286, 1996 (*Hoffman*). Applicants respectfully traverse the rejection of claim 9.

Claim 1 recites, "the incorporation of a probe molecule, capable of interacting specifically with a molecular entity and of revealing the presence thereof, in the pores of a porous material." As discussed above, the combined teaching of *Lee*, *Chao*, and *Schulz-Ekloff* fail to teach or suggest at least this element of claim 1. *Hoffman* is cited for disclosing "optical measurements may be used to detect chromophores within the pores of a molecular sieve host." *Office Action*, ¶6, page 6. Like *Chao* and *Schulz-Ekloff*, *Hoffman* is silent regarding "the incorporation of a probe molecule." Accordingly, claim 1 is also patentable over the combined teaching of *Lee*, *Chao*, *Schulz-Ekloff*, and *Hoffman*. Claim 9 indirectly depends from claim 1

and is therefore patentable over the combined teaching of *Lee*, *Chao*, *Schulz-Ekloff*, and *Hoffman* for at least the same reasons as claim 1. As such, Applicants also respectfully request withdrawal of this rejection.

The application is in condition for allowance and early, favorable action is respectfully solicited. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

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